

**Energy Release Component** is a number relating to the available energy released from forest fuels at the head of a fire's flaming front. ERC is a composite of live & dead fuel moistures. It is a very good reflection of drought conditions. It is a "build up" type index. Given a fire start in a fuel with a high ERC, fire containment can be expected to be difficult. ERC is very valuable in assessing the depth of a burn, consumption of the various fuel sizes, residual burning, mop-up requirements & Air Tanker support.

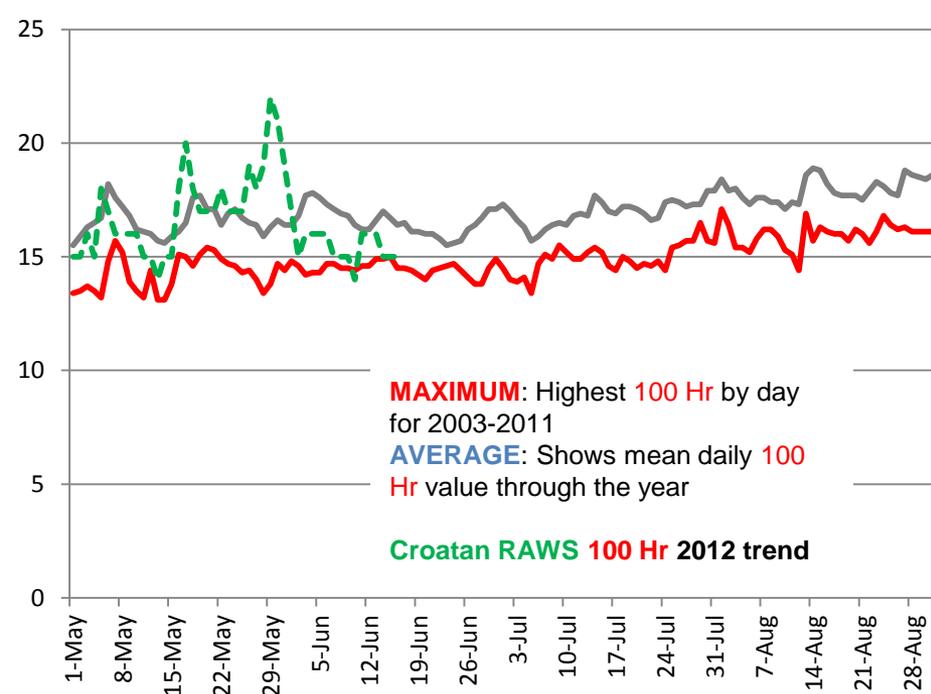
**EXTREME:** >98 percentile. Only 2% of the days from 2004-2011 had an ERC 39 or above.

**VERY HIGH:** 90-98 percentile. ERC values range from 30-38

**HIGH:** 55-90 percentile. ERC values range from 22-30, most fires occur in this range

**MODERATE:** 11-55 percentile. ERC values range from 09-22, large and multiple fires pick up at an ERC of 21

**LOW:** <11 percentile. ERC values range from <9,



**100 Hour Fuel Moisture (100hr)** – Moisture content of fuels 1 to 3 inches in diameter. 100hr fuel moisture aids in assessing holding tactics & mop-up that may be required. **100hr value of 17% or lower is a critical threshold value** and is a good indicator of when large and multiple fire days can be expected..

**Ignition Component (IC)** – the probability a firebrand will cause an “actionable” fire, and requires suppression action. IC is more than just a probability of a fire starting. It has to have the potential to spread. IC can be an aid in assessing spotting potential. An **IC value of  $\geq 15+$  is a critical threshold value**. Values at this level are critical especially during February, March, & April as firebrands initiate spot fires.

**Burning Index (BI)** - relates to the contribution of fire's behavior, in containing the fire. The difficulty of containment is directly proportional to the fireline intensity. BI is derived from the combination of the SC & ERC. BI can be a cross reference to fireline intensity & flame length. It assists in accessing spotting & crown fire potential as well as suppression resource needs & tactical considerations. In Hardwood fuels **BI's of 23+**, are known to contribute to large and multiple fire days. The doubling of the BI, 10 to 20 can increase flame length from 2 to 4ft. yet, increases fireline intensity 5 times.

